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NRC GRANTS TVA LICENSE AMENDMENT TO PRODUCE TRITIUM AT WATTS BAR NUCLEAR POWER PLANT FOR ENERGY DEPARTMENT

The Nuclear Regulatory Commission has granted the Tennessee Valley Authority (TVA) a license amendment to produce tritium at its Watts Bar nuclear power plant for use by the Department of Energy (DOE).

The license amendment grants TVA permission to use tritium-producing burnable absorber rods at the Watts Bar facility, located near Spring City, Tenn. DOE has developed technology to produce tritium using lithium, rather than boron, in burnable absorber rods to be installed in the Watts Bar reactor. The irradiated rods are to be removed from the power plant and shipped to the Savannah River Site, near Aiken, S.C., where DOE plans to extract the tritium.

The NRC staff held public meetings on the issue in Rockville, Md., in February 1997, and in Sweetwater, Tenn., in August 1997. The NRC staff determined in September 1997 that TVA could place 32 of the burnable absorber rods in the Watts Bar reactor core to test the technology. TVA irradiated the rods until the spring of 1999 and removed them from the reactor. DOE has examined the rods and confirmed that the technology worked.

A public meeting to discuss the tritium production and the NRC's process for reviewing the TVA license amendment request was held in Evensville, Tenn., last October.

TVA's license amendment permits it to install up to 2,304 of the rods into the Watts Bar reactor and irradiate them for one fuel cycle, which lasts about 18 months. TVA will then remove the irradiated rods for shipment to DOE's tritium extraction facility at the Savannah River Site. DOE subsequently plans to have TVA install new rods in the reactor to repeat the process for the life of the plant.

The TVA Watts Bar license amendment will be publicly accessible from the NRC's Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Room sometime in September. Help in using ADAMS is available from the NRC Public Document Room at 301-415-4737 or 800-397-4209.

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